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| APPLICATION NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO. |
| 08/776,321 | 04/15/97 | WUBBEN | |
| | | | M 29865 |
| | | | EXAMINER |

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SHERMAN, C. PAPER NUMB

1302
DATE MAILED:

12/03/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 4/15/97

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-17 is/are pending in the application
Of the above, claim(s) _____ is/are withdrawn from consideration
☐ Claim(s) _____ is/are allowed.
☒ Claim(s) 1-17 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
☐ received in Application No. (Series Code/Serial Number) _____
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of Reference Cited, PTO-892
☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 6
☐ Interview Summary, PTO-413
☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

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Part III DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
3. The drawings are objected to because the word "bear" should be spelled --beer--. Further, the chromatograms of Figs. 7A and 7B are of very poor quality, so as to be unviewable. Correction is required. The insertion of new matter should be avoided.

Specification

4. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications (if any).

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- © Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the invention.
 - 1. Field of the Invention.
 - 2. Description of the Related Art including information disclosed under 37 CFR 1.97-1.99.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).
- (I) Abstract of the Disclosure.

Claim Rejections - 35 USC § 112

- 5. Claim 5, 6, 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
- 6. Claim 5 recites the phrase “in such a manner that no significant part of the foam-stabilizing action is lost through boiling” and it is considered that this phrase embodies subject matter that those in the art would be unable to use the invention. More specifically, it is considered that the specification does not teach those in the art how to add the pectins in the above manner so that the stability of the foam is not lost through boiling.

7. Claims 1 to 17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Method claims 1 to 8 and 12 to 17 should recite the claimed steps in a positive manner, i.e., --adding-- rather than in a passive manner, i.e., “added.”

9. Claims 1, 9 and 11 are indefinite because the scope of the phrase “the preparation process of the beverage” is unknown, and further, there is no antecedent basis for said phrase.

10. Claim 4 is indefinite because there is no antecedent basis for the phrase “the end of the wort boiling.”

Claim 5 is considered indefinite because of the presence of the phrase quoted in the 112 first paragraph rejection above. Specifically, it is unclear as to the scope of said phrase.

11. Claim 6 is considered indefinite because there is no antecedent basis for the phrase “the bright beer filtration.”

12. Claim 6 is also considered indefinite because it is unclear how it further limits Claim 5. Specifically, because Claim 5 requires that the pectin be added before the end of the boil, which would occur before the bright beer filtration, it is therefor considered that Claim 6 is broader than Claim 5.

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Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1 to 12 and 14 to 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Papazian (The New Complete Joy of Home Brewing, page 64) as evidenced by The Practical Brewer (pages 138-39).

15. On page 64, Papazian teaches that it is common and well known to add 0.5 to 2 ounces of hops to 5 gallons (or 14 to 56 grams per 5 gallons) of beer. The claim range of 0.5 to 30 grams per hectoliter translates to .094 to 5.67 grams per 5 gallons (for example, 0.005 grams per liter/ 3.785 liters per gallon x 5 gallons) and therefore, Papazian teaches within this range. Papazian also teaches that the hops must be boiled with the wort and that this last for thirty to ninety minutes. (Page 64).

16. While Papazian does not specifically teach foam stability due to the addition of hop pectins, it is considered that it is inherently taught. Specifically, The Practical Brewer teaches that the hop pectin content is “[t]otal water soluble carbohydrates [of] about 10-12%, including about 2-3% reducing sugars.” This amount is listed under a paragraph on page 137, that teaches “[c]ontributions to the finished beer by the various [hop] fractions” This means that 1 gram

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of hops contains .10-.12% pectins. Based on the amount taught by Papazian, this would be 0.14 to 5.6 grams per 5 gallons.

17. The Office does not have the facilities for examining and comparing Applicant's product with the product of the prior art in order to establish that the product of the prior art does not possess the same material structural and functional characteristics of the claimed product. In the absence of evidence to the contrary, the burden is upon the applicant to prove that the claimed products and processes are functionally different than those taught by the prior art and to establish patentable differences. See *In re Best*, 562 F.2d 1252, 195 U.S.P.Q. 430 (CCPA 1977); *Ex parte Gray*, 10 U.S.P.Q.2d 1922, 1923 (BPAI).

18. Claims 1 to 12 and 14 to 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Zymurgy (Vol. 16, No. 3 Fall 1993, pp. 44 to 51) as evidenced by The Practical Brewer (pages 138-39).

19. Zymurgy teaches that "Gator Tale Ale" is produced by using 10 ounces total hops for boiling 30 minutes or longer. "Bulldog Bite" teaches the use of 12 ounces of hops per 5 gallons. For the reasons set forth above, it is considered that the cited art inherently anticipates the claims.

20. Claims 1, 4, 7 and 9 to 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bukovskii et al. (S.U. Pat. No. 685689).

21. Bukovskii et al teach the use of pectin, obtained from beets, as an additive to beer to produce a 'better quality beer with [a] stable high head" (see Abstract). It is added in an amount of 0.5 to 1.0 gram per hectoliter.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 5, 6, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bukovskii et al.

24. Bukovskii et al. teach that cited above but do not teach the use of the pectin in the amount claimed, i.e., 3 to 19 grams per hectoliter. Nor does it teach that the pectin should be added 30 minutes before the end of the boil.

25. It would have been obvious to one of ordinary skill in the art to vary the time when the pectin is added as well as how much pectin is added because both will determine the result, i.e., the type and amount of foam produced, obtained. Optimization is well within the ordinary skill in of those in the art.

26. Claims 2, 3, 13, 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bukovskii et al in view of The Practical Brewer and in further view of Food Colloids (pp. 418-35)

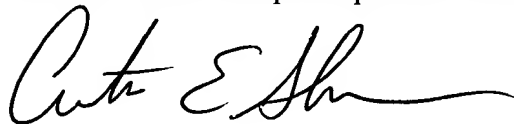
27. Bukovskii et al. teach that cited above but do not teach the use of hop derived pectin. The Practical Brewer teaches that hops contain about 10% pectin, but does not teach the extraction of the pectin from the hops. Neither reference teaches the extraction of pectin at a pH range of 1 to 3.5 in an aqueous solution at 50 to 100°C (Claim 13).

28. Food Colloids teach that “pectic substances are found in the intercellular regions and the cell walls of all higher plants.” (Page 418). In Table 10.1, various plant materials are listed. “Pectin extraction is carried out with acid at elevated temperature” (Pages 426 o 427). The disclosure continues by detailing the effect of the pH and the temperature upon the final pectin product (see page 427). It would have been obvious to those of ordinary skill in the art to extract pectin from hops to modify the foam characteristics of beer as taught by Bukovskii et al because pectin is a major component of hops. Further, many countries find ample motivation to use additives that are obtained from traditional brewing materials, i.e., malt, hops, water or yeast. This is best demonstrated by Germany’s Beer Purity Law, or “Reinheitsgebot.” It would also have been obvious to those of ordinary skill in the art to modify the pectin extraction conditions that are used on the hops because the pH and temperature range used in the extraction will have an effective result on the final pectin product.

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Conclusion

29. No claim is allowed.
30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
31. Platt (U.S. Pat. No. 2,020,572) discloses a method of extracting pectin.
32. Baker et al (U.S. Pat. No. 2,233,574) disclose jellying pectin compositions.
33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Sherrer whose telephone number is (703) 308-3847. The examiner can normally be reached on Monday through Friday from 6:00 to 2:30.
34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Lacey, can be reached on (703)-308-3535. The fax phone number for this Group is (703)-305-3602.
35. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.



Curtis E. Sherrer

November 26, 1997



DAVID L. LACEY
SUPERVISORY PATENT EXAMINER
GROUP 1300
11/26/97